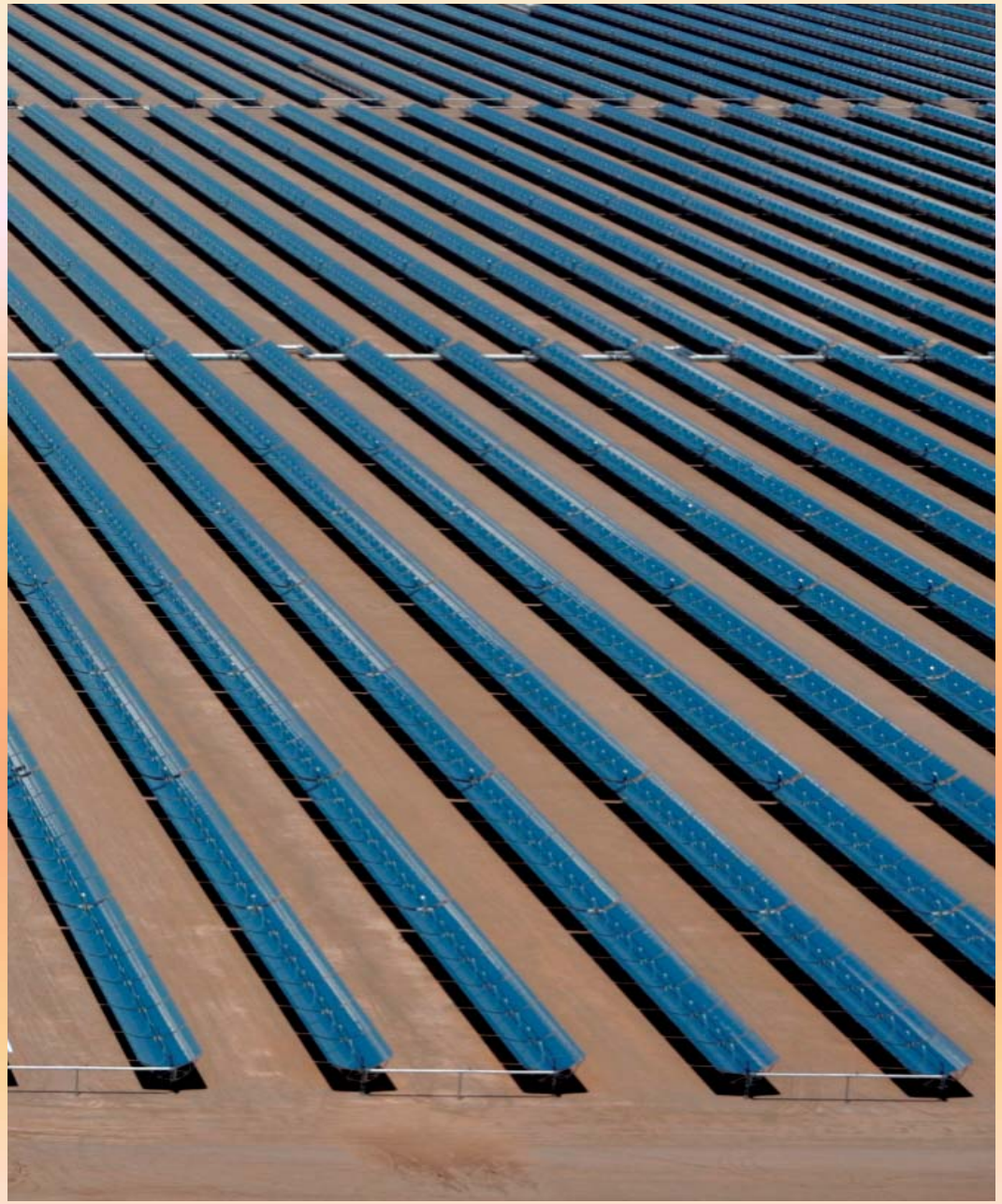


SolarPaces 2008
Las Vegas,NV

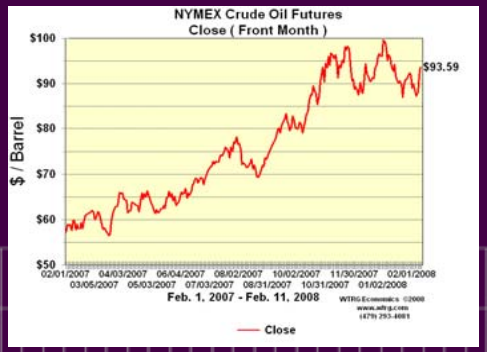
Solar Steam at Nevada Solar One

Gilbert E Cohen
Senior Vice President
Acciona Solar Power

acciona
SOLAR POWER

CENTRALIZED SOLAR FOR ELECTRIC GENERATION

CSP IMPLEMENTATION vs. World Oil Prices



MW Installed

$ PER BARREL

0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96 100

0 10 20 30 40 50 60 70 80 90 100

80 80 60 60 30 30 14 10 1 64

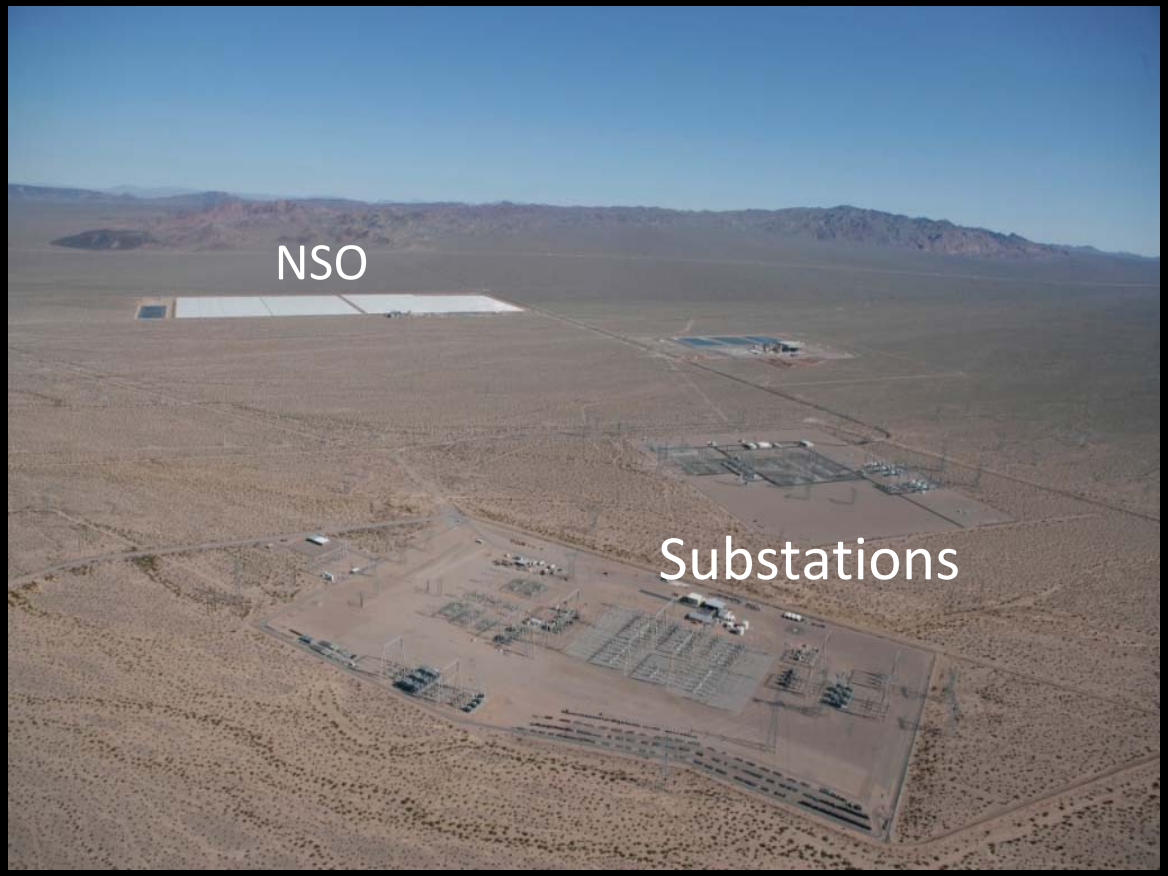
70 71 72 73 Oil Embargo 74 75 76 77 76 PURPA 79 80 81 SOLAR 1 82 83 84 SEGS 1 85 SEGS 2 86 SEGS 3 & 4 87 SEGS 5 88 SEGS 6 & 7 89 SEGS 8 90 SEGS 9 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 Saguaro 06 07 NSO 08

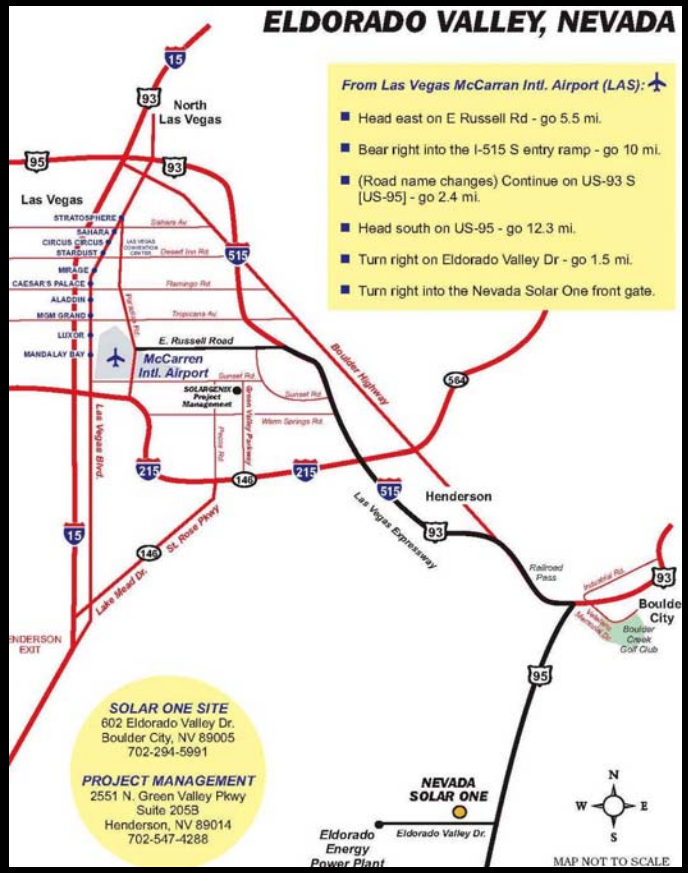
Oil price CSP

INTRODUCING .....

Nevada Solar One

NSO PROJECT LOCATION





Solar One is located in the El Dorado Valley approx 35 miles SE of Las Vegas, Nevada

Nevada Solar One - Infrastructure

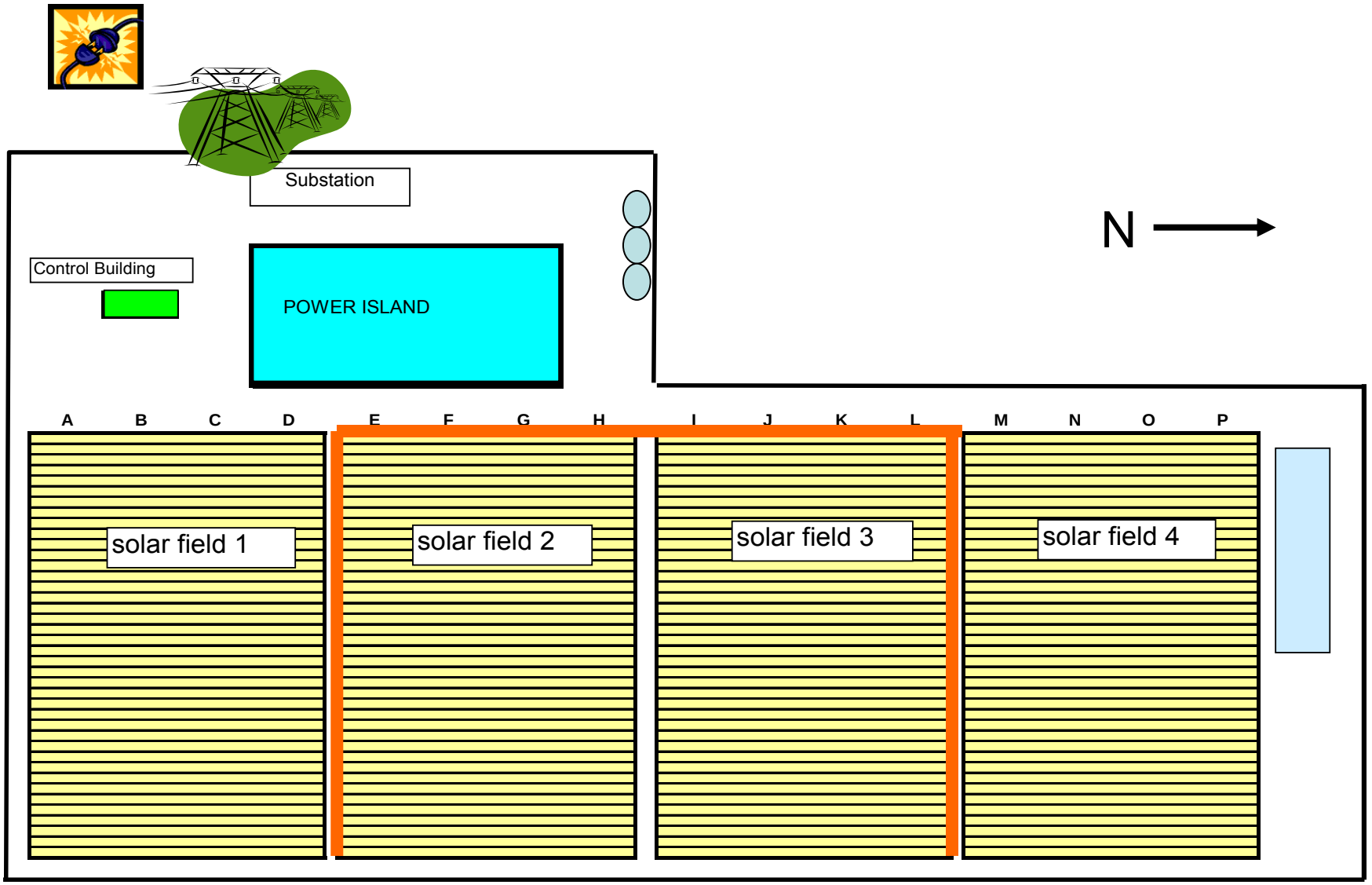
Nevada Renewable Portofolio Standard

Nevada's current RPS adopted in 2005 requires the state's electric utilities to generate or acquire a minimum of 6 percent of electricity sold to retail customers from renewable energy systems in 2005 and 2006, and gradually increases the standard until it reaches 20 percent in 2015.

The RPS includes a solar set-aside of 5 percent of annual renewable energy generation

Public Utilities Commission of Nevada created a Temporary Renewable Energy Development (TRED) Program allowing IOUs to collect revenue from electric customers to pay for renewable energy separate from other wholesale power purchased.

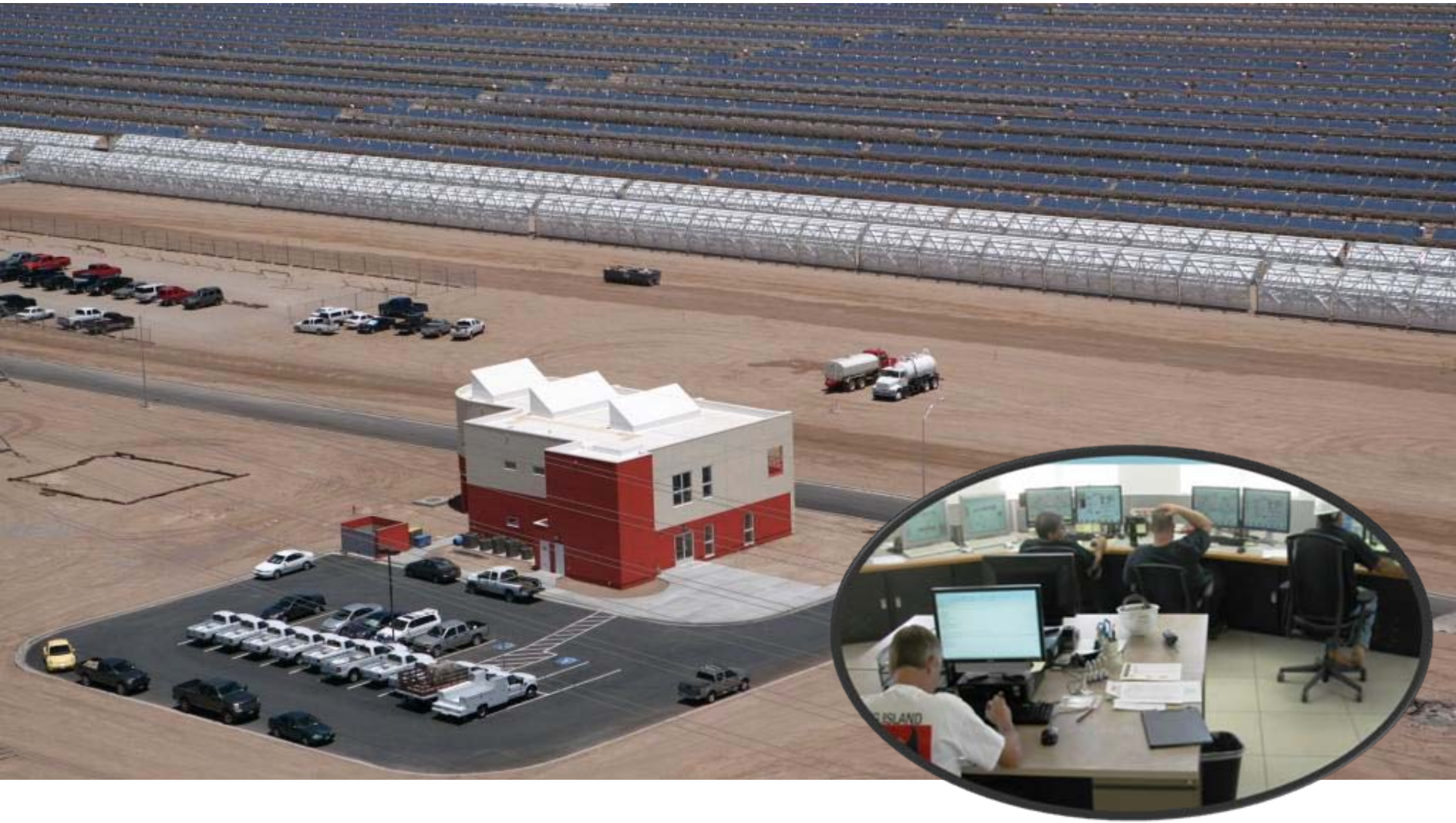
NEVADA SOLAR ONE - LAYOUT



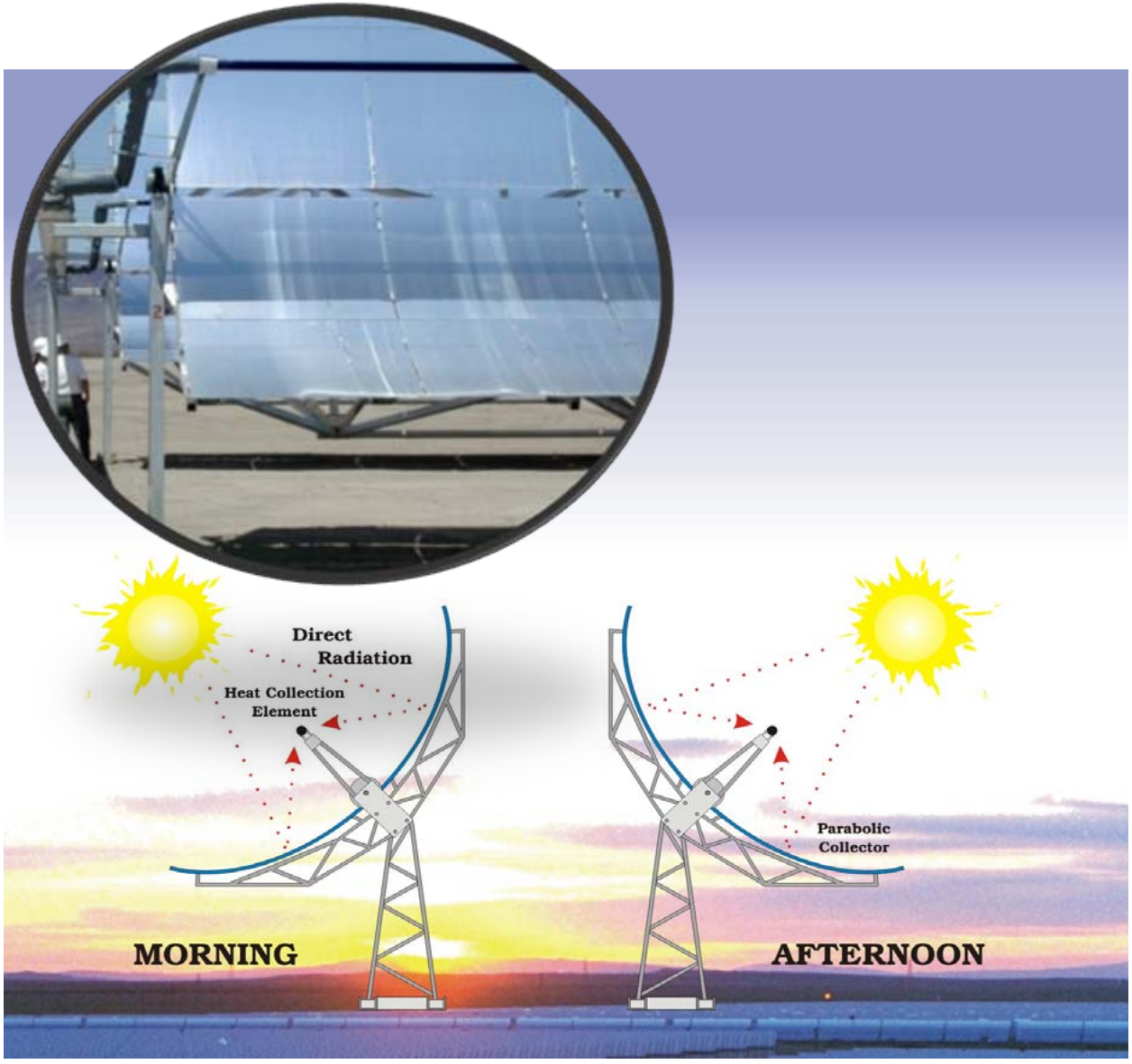
SOLAR FIELD

POWER BLOCK

Control Room Building



SIMPLE SCHEMATIC OF PARABOLIC TROUGH OPERATION (North-South Axis)

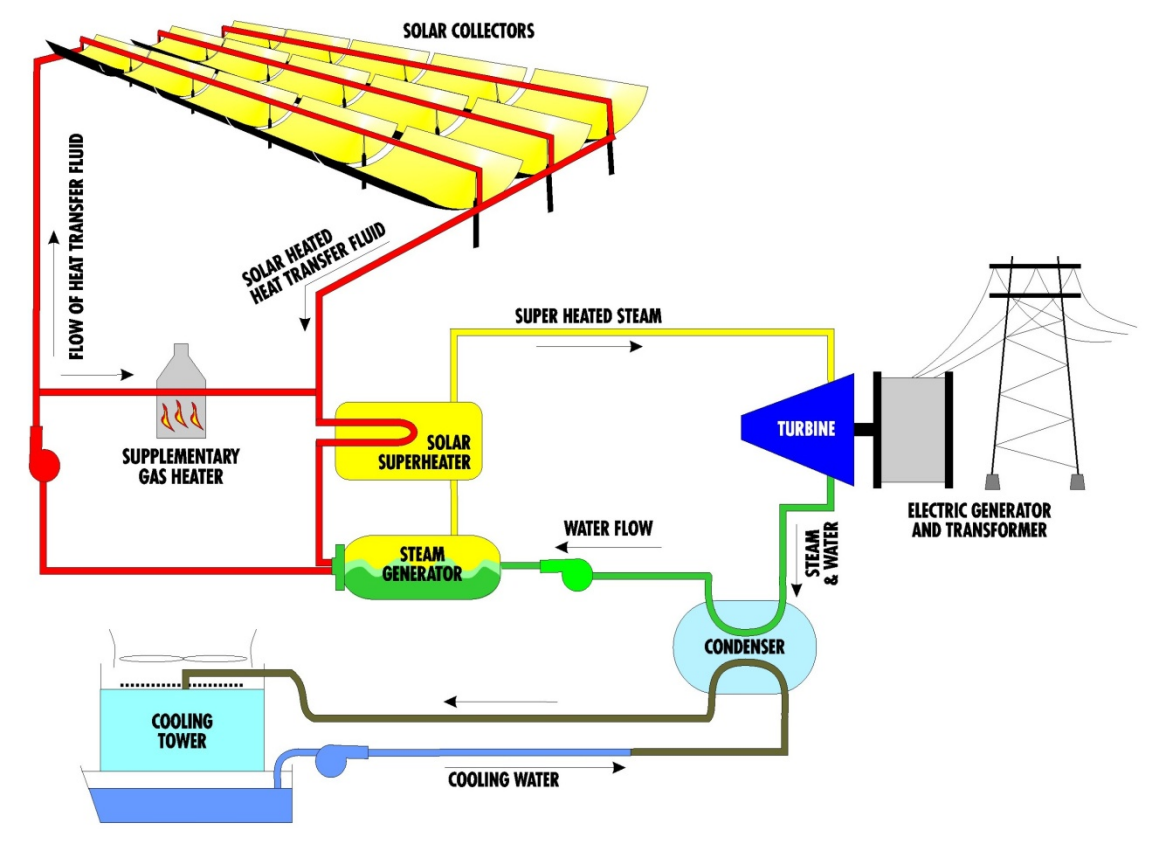


Concentration Ratio
71:1 (71 Suns)

- NSO utilize Parabolic Trough Collectors which is a Concentrating Solar Power (CSP) Technology
- CSP Technologies utilize Direct Normal Radiation (DNR) which is measured in terms of Watts per Square Meter

Parabolic Trough Collector

NSO - Simple schematic



The solar thermal industry and especially the Concentrating Solar Power industry are being developed worldwide in a rapid pace, this should attract more large manufacturers to consider the production of solar field components at attractive costs.

PROJECT OVERVIEW

NSO Characteristics

SOLAR FIELD	
Solar Collector Assemblies	760
Aperture Area (m/ft)	5/16
Aperture Area (m^2/sq. ft.)	470/5059
Length (m/ft.)	100/328
Concentration Ratio	71
Optical Efficiency	0.77
# of Mirror Segments	182,400
# of Receiver Tubes	18,240
Field Aperture (m^2)	357,200
Site Area (Km^2/acres)	1.62/400
Field Inlet Temperature (°C/°F)	300/573
Field Outlet Temperature (°C/°F)	390/735

POWER BLOCK	
Turbine Generator Gross Output	75 MWe
Net Output to Utility	72 MWe
Solar Steam Inlet Pressure	86.1 bars/1248.8 psi
Solar Steam Reheat Pressure	19.5 bars/282.8 psi
Solar Steam Inlet Temperature	371°C / 700°F

Nevada Solar One - Highlights

- ✓ 357,200 m2 of Solar Field
- ✓Generating Capacity 64 MW (Nominal)
- ✓ 72 MW Net Output Steam turbine

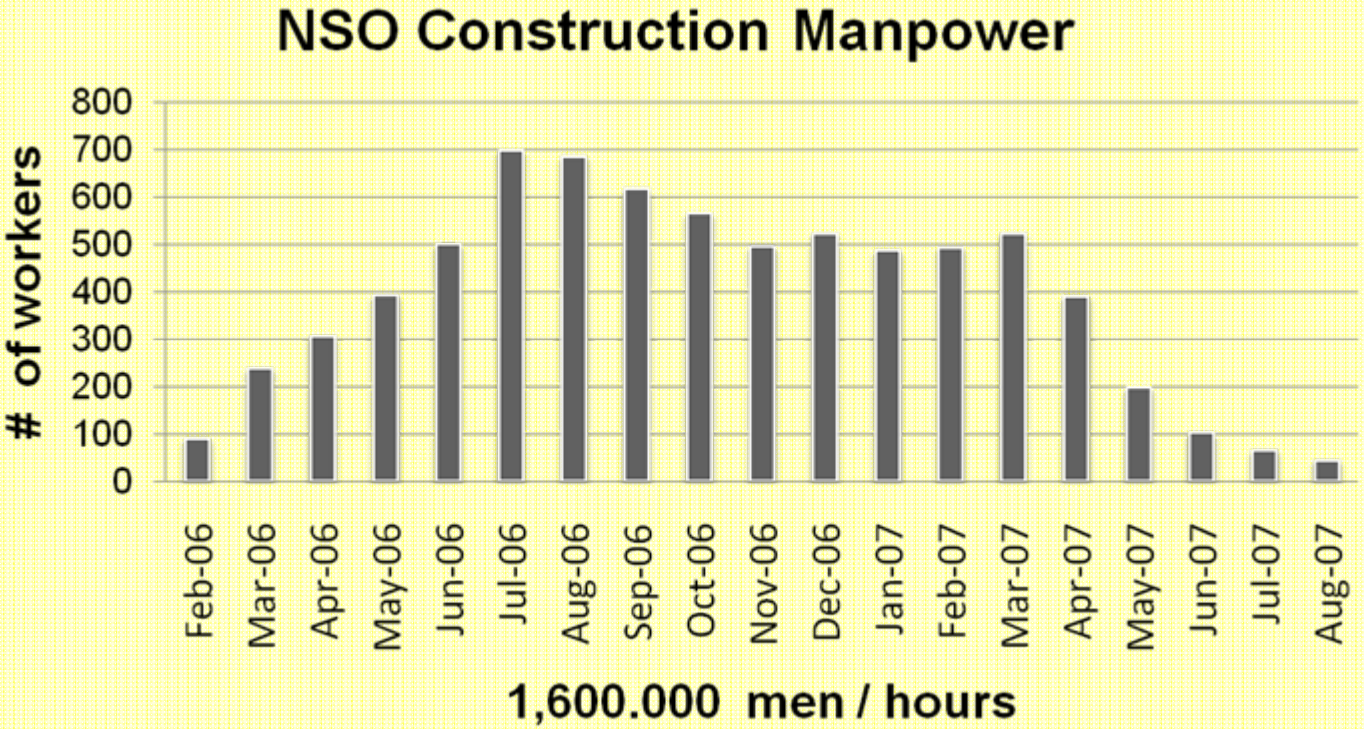
- ✓ Annual Production > 130,000 MWh

- ✓ NSO Reduce carbon dioxide emissions by ≈ 200,000,000 pounds per year- This is the equivalent of removing more than 19,000 cars from the nation's roads

- ✓ *Capital investment : ≈ 266 Millions USD*

Nevada Solar One – Highlights – (continued)

✓ Construction completed in Less than 18 months
✓ 1,600.000 men hours (An average of 400 jobs created for 18 months + 28 jobs for 20 + years for O&M)
✓ Excellent safety record



TIMELINE

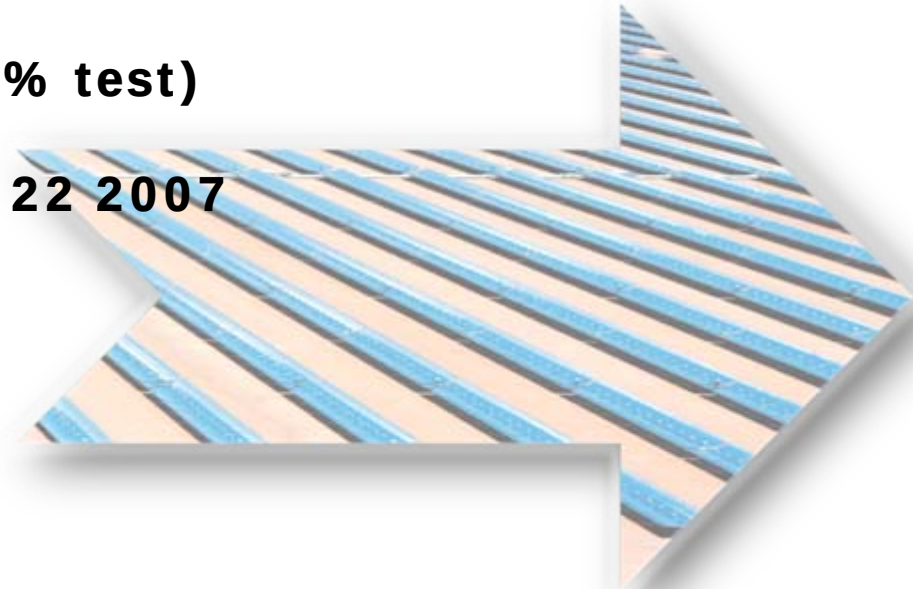
- Long term Power Purchase Agreement signed with Nevada Power and Sierra Pacific – March 2003
- Amendment for expansion to 64 MW - approved in June 5, 2005
- Groundbreaking Feb 2006
- Turbine delivered on site Nov 2006
- Utility Interconnection completed Nov 2006
- Solar Field 100 % Completed March 29 2007
- Utility Electrical testing – May 18 2007
- Steam quality achieved – May 30 2007

FEBRUARY 2006

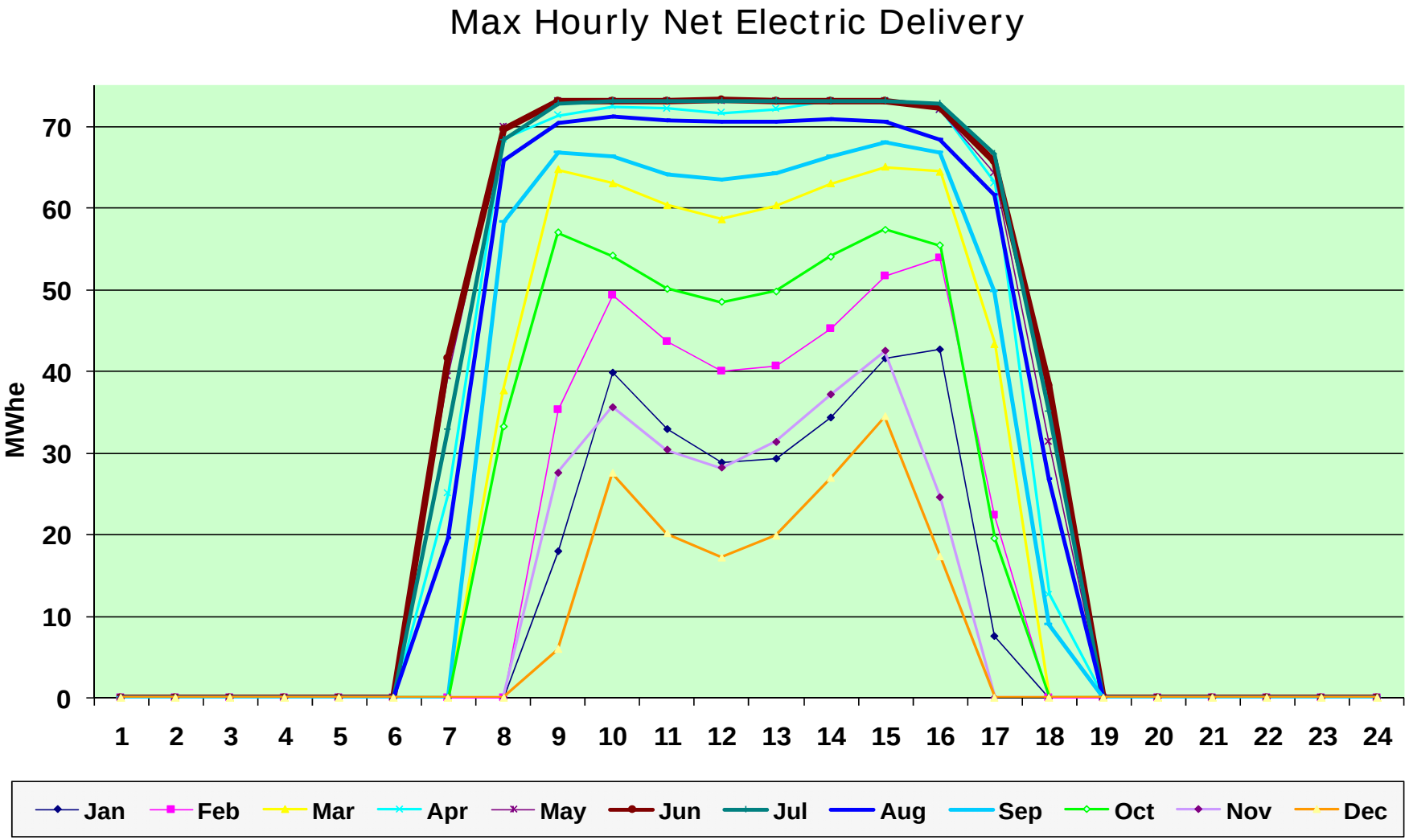
FEBRUARY 2007

TIMELINE (Continued)

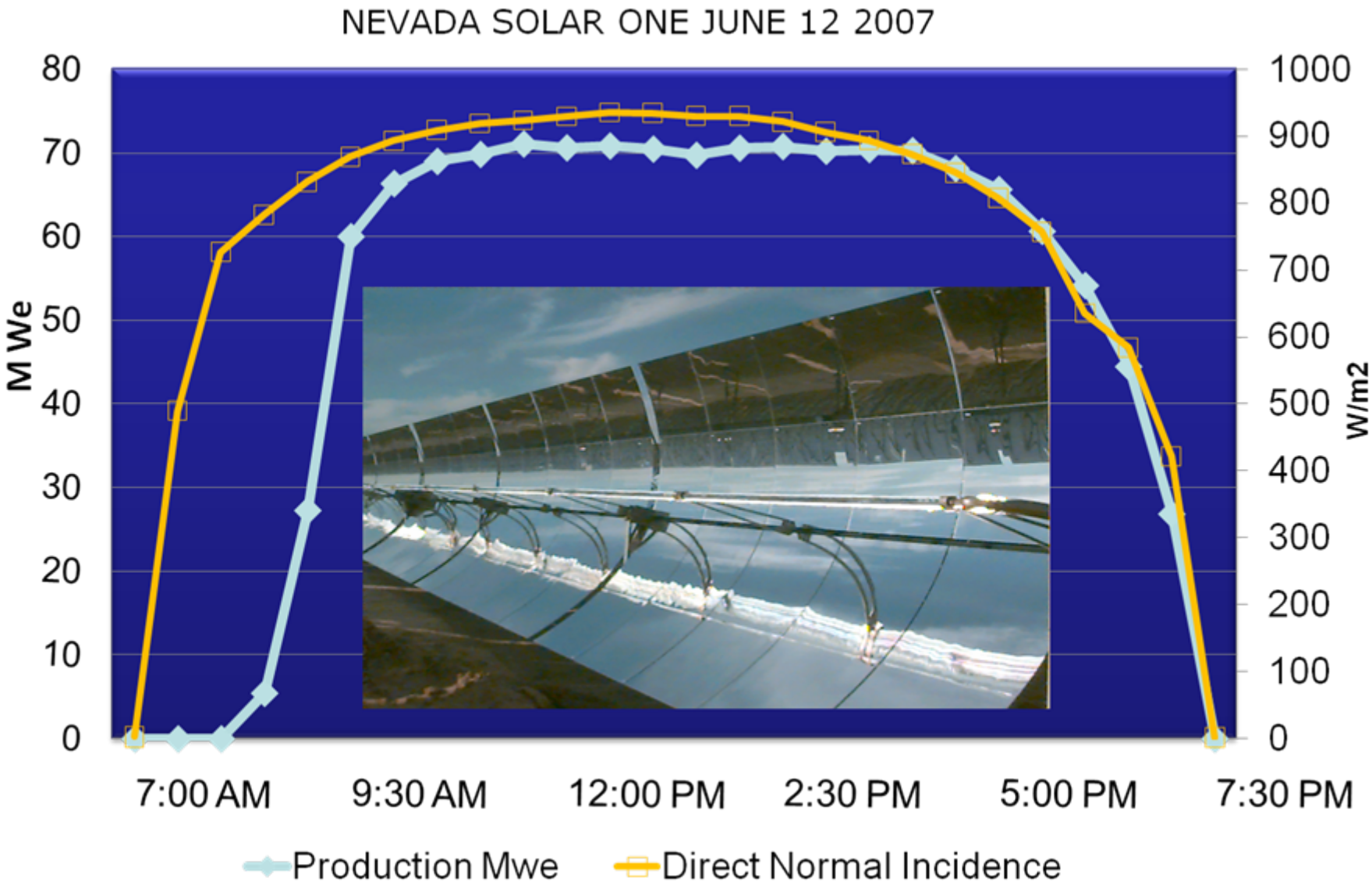
- **Turbine overspeed testing – May 30 2007**
- **Pre-Sync testing – June 1 2007**
- **First Synchronization June 2 2007**
- **Reliability testing for Nevada Power Company started June 6, 2007- Completed June 13, 2007**
- **Plant performance testing (90% test)**
- **Commercial Operation – June 22 2007**



PERFORMANCE FORECAST



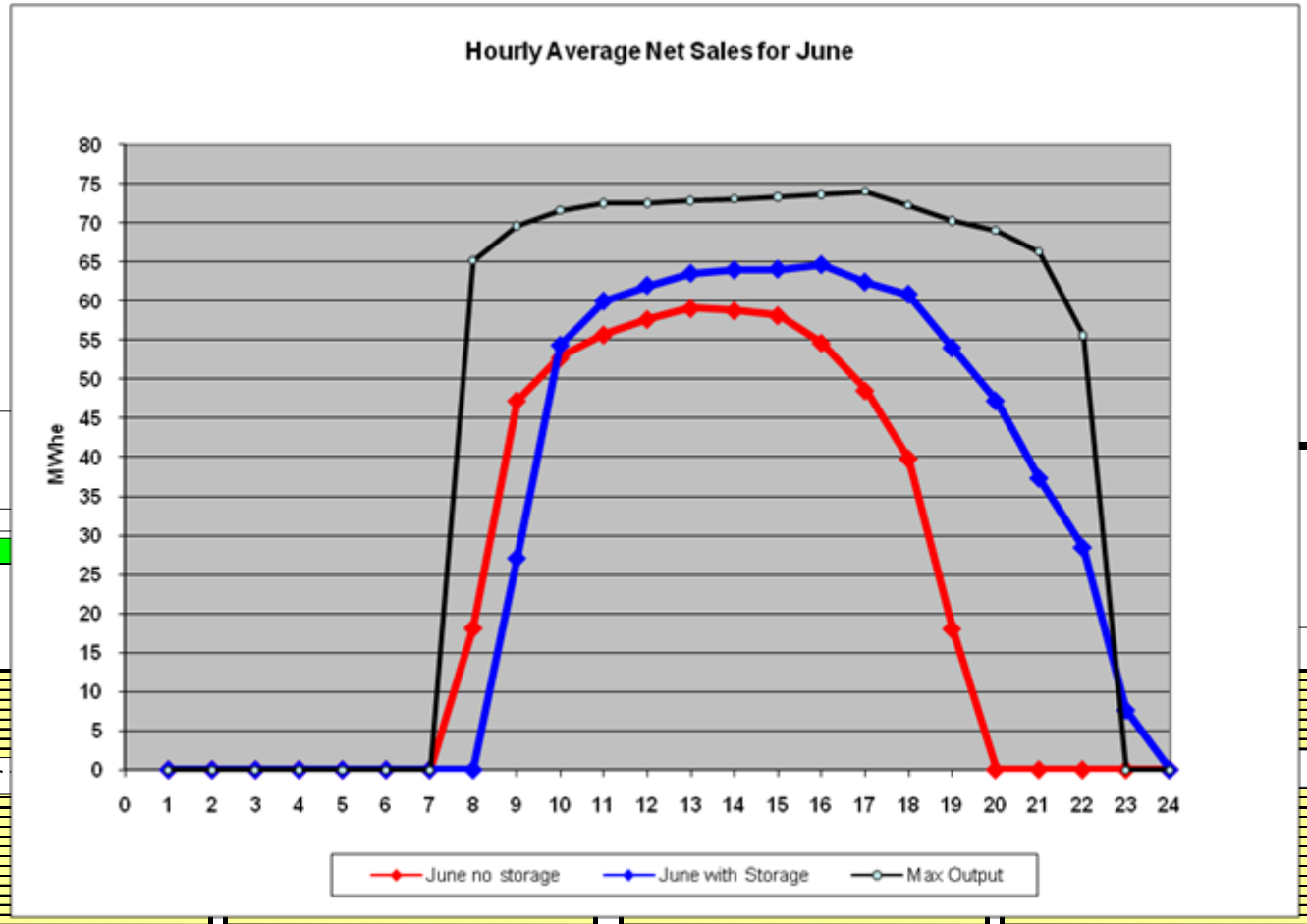
PERFORMANCE TESTING



Next steps

- Secure Purchase Power Agreement
- Secure new sites
- Develop and commercialize Thermal Storage

NEVADA SOLAR ONE –FUTURE LAYOUT



Other Projects - SPAIN

4 Solar Power Plants – 50 MW each

La Risca One	Under Construction
La Risca Two	Under Development
Palma Del Rio 1	Under Development
Palma Del Rio 2	Under Development

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Thank you .....